

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: PORTFOLIO

Report Number: P252150

Luminaire Tested: **LE\_6B15D010 EC6B10209040 6LBSW1LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P252150  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-1)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LE\_6B15D010 EC6B10209040 6LBSW1LI  
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2025.0 lumens  
Efficiency: N/A  
Efficacy: 140.6 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.29 / 1.21  
Luminous Opening: Circular (Dia: 0.46' x H: 0')  
CIE Type: Direct

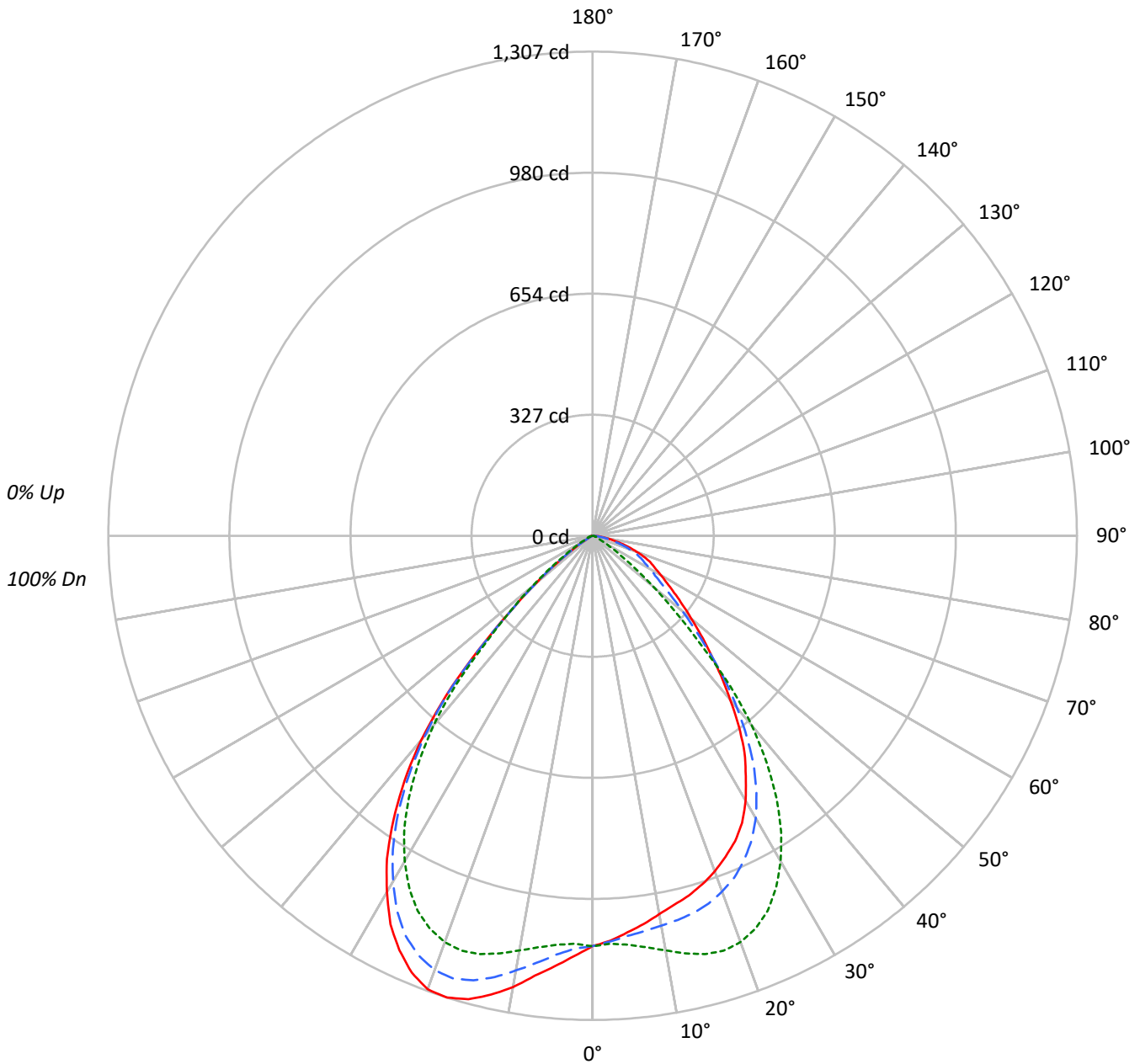
Input Watts (W): 14.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20				
RC	80				70				50				30				10			0	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			
1	112	108	105	103	109	106	103	101	102	100	98	98	96	95	95	93	92	90			
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	80			
3	98	89	83	78	95	88	82	78	85	80	76	83	78	75	80	77	74	72			
4	91	82	75	69	89	80	74	69	78	72	68	76	71	67	74	70	66	65			
5	85	75	67	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58			
6	80	69	61	56	78	68	61	56	66	60	55	64	59	55	63	58	54	53			
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	50	48			
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44			
9	66	54	47	42	64	54	47	42	53	46	42	52	46	42	51	45	42	40			
10	62	50	43	39	61	50	43	39	49	43	39	48	43	39	47	42	38	37			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	72280	72280	72280
5°	70402	72556	76368
10°	68692	75283	81948
15°	67887	78970	87480
20°	66914	81029	90450
25°	65492	80436	88822
30°	62233	76433	83620
35°	56938	68908	74658
40°	49243	56908	61243
45°	41528	37330	40061
50°	35260	21609	20309
55°	30597	10362	7837
60°	27649	4841	1944
65°	26830	2779	648
70°	24035	2213	591
75°	19762	1613	252
80°	14690	789	0
85°	12725	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	107.0	5.3
10°-20°	326.1	16.1
20°-30°	498.3	24.6
30°-40°	521.2	25.7
40°-50°	338.1	16.7
50°-60°	134.2	6.6
60°-70°	63.7	3.1
70°-80°	30.3	1.5
80°-90°	6.2	0.3
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	931.4	46.0
0°-40°	1452.6	71.7
0°-60°	1924.9	95.1
0°-90°	2025.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2025.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1108	1108	1108	1108	1108	
5°	1075	1084	1108	1135	1166	102
15°	1005	1054	1169	1242	1295	283
25°	910	967	1117	1193	1234	417
35°	715	758	865	916	937	442
45°	450	446	405	429	434	350
55°	269	229	91	71	69	244
65°	174	144	18	4	4	170
75°	78	64	6	2	1	85
85°	17	11	0	0	0	20
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1107.9	1107.9	1107.9	1107.9	1107.9	1107.9	1107.9	1107.9	1107.9	1107.9	1107.9
2.5°	1094.1	1096.1	1084.5	1081.4	1089.9	1093.0	1094.1	1090.9	1092.0	1096.1	1096.1
5°	1075.0	1077.1	1066.5	1063.4	1071.9	1074.0	1077.1	1076.0	1079.2	1085.6	1084.5
7.5°	1057.0	1060.1	1048.5	1044.2	1054.9	1060.1	1062.2	1062.2	1066.5	1075.0	1076.0
10°	1036.9	1041.1	1030.5	1028.4	1040.0	1045.4	1046.4	1048.5	1054.9	1066.5	1068.6
12.5°	1019.9	1024.1	1016.8	1013.6	1026.2	1031.6	1033.8	1037.9	1045.4	1060.1	1062.2
15°	1005.1	1008.2	999.8	997.6	1010.4	1016.8	1017.8	1024.1	1033.8	1050.6	1053.9
17.5°	986.0	988.1	981.8	979.6	992.4	998.8	999.8	1007.2	1018.9	1035.9	1041.1
20°	963.8	965.9	959.5	957.5	970.1	977.6	978.6	985.0	998.8	1016.8	1022.0
22.5°	937.4	941.5	934.1	932.0	944.8	951.1	954.2	959.5	973.4	991.4	998.8
25°	909.8	909.8	904.5	903.4	915.1	922.5	921.4	928.9	942.6	960.6	967.0
27.5°	873.8	872.8	867.4	866.4	879.1	885.4	883.2	890.8	903.4	921.4	927.8
30°	826.1	828.2	820.9	818.8	829.2	839.9	838.9	846.2	859.0	875.9	880.1
32.5°	768.9	771.0	770.0	766.8	776.4	781.6	784.8	790.1	800.8	818.8	822.9
35°	714.9	711.8	707.5	707.5	717.0	725.5	722.4	728.6	739.2	757.2	758.4
37.5°	648.1	647.1	645.0	642.9	653.5	655.6	656.6	660.9	670.4	685.2	683.1
40°	578.2	579.4	578.2	574.0	580.4	588.9	587.8	589.9	598.4	609.0	605.9
42.5°	512.6	512.6	512.6	508.4	515.8	520.0	522.1	521.1	523.2	532.8	528.5
45°	450.1	451.1	450.1	449.1	450.1	452.2	450.1	449.1	449.1	452.2	445.9
47.5°	396.1	396.1	392.9	389.8	392.9	394.0	390.9	387.6	386.6	385.5	374.9
50°	347.4	346.4	345.2	340.0	343.1	344.2	340.0	337.9	333.6	328.4	315.6
52.5°	305.0	304.0	302.9	297.6	299.8	300.8	296.5	292.4	287.0	282.8	266.9
55°	269.0	268.0	268.0	264.8	262.6	264.8	260.5	257.4	250.0	244.6	228.8
57.5°	238.2	238.2	236.1	233.0	234.1	234.1	229.9	225.6	219.2	212.9	200.1
60°	211.9	211.9	211.9	208.6	208.6	208.6	206.5	202.2	197.0	190.6	177.9
62.5°	190.6	190.6	189.6	186.4	187.5	187.5	185.4	181.1	175.9	171.6	158.9
65°	173.8	173.8	173.8	170.5	170.5	171.6	169.5	165.2	161.0	155.8	144.0
67.5°	152.5	151.5	151.5	149.4	150.4	151.5	149.4	146.1	140.9	137.6	127.1
70°	126.0	127.1	128.1	125.0	126.0	126.0	125.0	121.8	118.6	115.5	105.9
72.5°	102.8	102.8	101.6	100.6	100.6	101.6	99.5	96.4	94.2	92.1	84.8
75°	78.4	77.4	78.4	76.2	76.2	76.2	74.1	73.1	72.0	68.9	63.5
77.5°	57.2	56.1	56.1	54.0	55.1	55.1	54.0	51.9	49.8	48.8	44.5
80°	39.1	39.1	39.1	38.1	38.1	37.1	37.1	36.0	33.9	32.9	30.8
82.5°	26.5	26.5	26.5	25.4	25.4	25.4	24.4	23.2	22.2	21.1	19.1
85°	17.0	17.0	17.0	15.9	15.9	15.9	14.9	14.9	13.8	12.8	10.6
87.5°	9.5	9.5	9.5	8.5	8.5	8.5	8.5	8.5	7.4	6.4	5.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1107.9	1107.9	1107.9	1107.9	1107.9	1107.9	1107.9	1107.9	1107.9	1107.9	1107.9
2.5°	1103.6	1088.8	1098.2	1098.2	1095.1	1103.6	1108.9	1113.1	1112.1	1102.5	1101.5
5°	1095.1	1082.4	1093.0	1094.1	1090.9	1102.5	1110.0	1115.2	1116.2	1107.9	1108.9
7.5°	1088.8	1078.1	1092.0	1096.1	1095.1	1105.8	1114.2	1122.6	1126.9	1120.5	1121.6
10°	1085.6	1077.1	1092.0	1098.2	1099.4	1111.0	1123.8	1135.4	1140.6	1136.4	1139.6
12.5°	1081.4	1076.0	1093.0	1102.5	1106.8	1118.4	1134.4	1148.1	1156.5	1154.4	1160.8
15°	1077.1	1072.9	1093.0	1106.8	1112.1	1122.6	1140.6	1160.8	1170.4	1169.2	1177.8
17.5°	1066.5	1065.5	1086.6	1101.5	1108.9	1121.6	1138.5	1162.9	1172.5	1174.5	1185.1
20°	1049.6	1049.6	1072.9	1088.8	1097.2	1108.9	1130.1	1153.4	1165.0	1167.1	1178.8
22.5°	1026.2	1028.4	1050.6	1066.5	1079.2	1087.8	1110.0	1134.4	1144.9	1148.1	1160.8
25°	995.6	997.6	1018.9	1034.8	1048.5	1058.0	1079.2	1101.5	1114.2	1117.4	1126.9
27.5°	955.4	959.5	979.6	995.6	1007.2	1013.6	1035.9	1059.1	1068.6	1071.9	1081.4
30°	908.8	909.8	929.9	943.6	955.4	960.6	979.6	1004.0	1011.5	1014.6	1028.4
32.5°	851.5	850.5	869.5	882.2	891.8	898.1	918.2	934.1	941.5	946.9	954.2
35°	782.6	781.6	795.4	810.2	817.6	819.8	839.9	856.9	861.0	865.2	874.9
37.5°	705.4	705.4	717.0	724.4	732.9	736.1	745.6	764.6	772.1	771.0	778.5
40°	623.9	619.6	628.0	635.5	637.6	638.6	648.1	663.0	668.2	668.2	673.6
42.5°	538.0	531.6	532.8	537.0	539.1	531.6	538.0	547.6	544.4	548.6	549.6
45°	447.0	437.4	433.1	423.6	425.8	418.4	414.1	416.2	415.1	404.6	406.8
47.5°	372.8	355.9	348.5	334.6	331.5	323.0	317.8	308.2	299.8	299.8	294.4
50°	310.4	293.4	278.5	262.6	257.4	250.0	238.2	225.6	219.2	212.9	207.6
52.5°	260.5	242.5	224.5	207.6	200.1	190.6	174.8	162.0	150.4	144.0	137.6
55°	220.2	200.1	181.1	163.1	153.6	144.0	128.1	113.4	99.5	91.1	85.8
57.5°	189.6	170.5	150.4	131.4	122.9	112.2	95.4	79.4	66.8	57.2	51.9
60°	167.4	148.2	130.2	110.1	101.6	91.1	73.1	58.2	45.5	37.1	30.8
62.5°	148.2	131.4	112.2	94.2	85.8	75.2	58.2	43.4	31.8	23.2	18.0
65°	134.5	117.5	101.6	83.6	76.2	65.6	49.8	36.0	25.4	18.0	12.8
67.5°	118.6	103.8	87.9	73.1	65.6	57.2	42.4	30.8	21.1	14.9	10.6
70°	99.5	87.9	74.1	60.4	55.1	47.6	35.0	25.4	17.0	11.6	8.5
72.5°	79.4	69.9	59.2	48.8	44.5	37.1	28.6	20.1	12.8	8.5	6.4
75°	60.4	53.0	44.5	37.1	32.9	28.6	21.1	14.9	9.5	6.4	4.2
77.5°	41.2	38.1	31.8	25.4	23.2	20.1	13.8	9.5	6.4	4.2	2.1
80°	28.6	25.4	21.1	17.0	14.9	12.8	8.5	6.4	3.1	2.1	1.0
82.5°	18.0	14.9	12.8	10.6	9.5	7.4	5.2	3.1	2.1	1.0	1.0
85°	9.5	8.5	7.4	5.2	5.2	4.2	3.1	2.1	1.0	0.0	0.0
87.5°	5.2	4.2	3.1	2.1	2.1	1.0	1.0	1.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1107.9	1107.9	1107.9	1107.9	1107.9	1107.9	1107.9	1107.9	1107.9	1107.9	1107.9
2.5°	1114.2	1114.2	1113.1	1125.9	1111.0	1125.9	1118.4	1125.9	1115.2	1114.2	1115.2
5°	1122.6	1125.9	1126.9	1138.5	1124.8	1142.8	1136.4	1142.8	1135.4	1137.5	1140.6
7.5°	1139.6	1144.9	1143.9	1158.6	1144.9	1165.0	1160.8	1170.4	1162.9	1165.0	1169.2
10°	1158.6	1165.0	1166.1	1180.9	1168.2	1192.6	1187.2	1197.9	1191.5	1194.6	1200.0
12.5°	1180.9	1188.4	1189.4	1206.4	1192.6	1218.0	1214.8	1225.4	1220.1	1223.2	1229.6
15°	1197.9	1208.5	1210.6	1227.5	1212.6	1239.1	1237.0	1250.9	1242.4	1247.6	1252.9
17.5°	1206.4	1215.9	1220.1	1236.0	1223.2	1249.8	1247.6	1259.2	1252.9	1258.2	1264.6
20°	1201.0	1212.6	1215.9	1231.8	1219.0	1245.5	1242.4	1254.0	1247.6	1251.9	1258.2
22.5°	1182.0	1193.6	1197.9	1212.6	1201.0	1225.4	1224.4	1234.9	1226.5	1231.8	1237.0
25°	1148.1	1160.8	1162.9	1176.6	1164.0	1189.4	1187.2	1198.9	1192.6	1195.8	1203.1
27.5°	1099.4	1114.2	1117.4	1129.0	1119.5	1140.6	1140.6	1150.2	1142.8	1142.8	1150.2
30°	1041.1	1056.0	1058.0	1067.6	1059.1	1078.1	1079.2	1088.8	1077.1	1083.5	1084.5
32.5°	970.1	979.6	986.0	994.5	981.8	1006.1	1003.0	1010.4	1004.0	1004.0	1009.4
35°	884.4	896.0	899.2	909.8	899.2	918.2	918.2	922.5	916.1	916.1	924.6
37.5°	791.1	799.6	800.8	811.2	802.8	818.8	817.6	820.9	814.5	818.8	818.8
40°	682.1	688.4	690.5	695.9	694.8	706.4	705.4	707.5	704.2	705.4	707.5
42.5°	555.0	563.5	567.6	571.9	565.6	581.5	578.2	581.5	580.4	581.5	584.6
45°	408.9	415.1	418.4	419.4	417.2	426.9	434.2	427.9	429.0	426.9	431.0
47.5°	295.5	296.5	294.4	300.8	295.5	299.8	301.9	302.9	296.5	295.5	299.8
50°	202.2	207.6	200.1	203.4	202.2	206.5	204.4	205.5	199.1	202.2	200.1
52.5°	134.5	133.5	131.4	132.4	130.2	130.2	130.2	132.4	128.1	126.0	123.9
55°	81.5	79.4	75.2	74.1	74.1	75.2	73.1	71.0	71.0	69.9	69.9
57.5°	47.6	44.5	42.4	41.2	39.1	38.1	37.1	37.1	35.0	35.0	35.0
60°	26.5	23.2	21.1	19.1	19.1	18.0	17.0	15.9	15.9	15.9	14.9
62.5°	13.8	11.6	9.5	8.5	8.5	7.4	6.4	6.4	6.4	6.4	5.2
65°	9.5	7.4	6.4	5.2	5.2	4.2	4.2	4.2	4.2	4.2	4.2
67.5°	7.4	6.4	5.2	4.2	4.2	4.2	3.1	3.1	3.1	3.1	3.1
70°	6.4	4.2	4.2	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
72.5°	4.2	4.2	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
75°	3.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
77.5°	1.0	1.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0
80°	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0





TEST NUMBER: P252150

CATALOG NUMBER: LE\_6B15D010 EC6B10209040 6LBSW1LI

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1107.9	1107.9	1107.9	1107.9	1107.9	1107.9	1107.9	1107.9
2.5°	1124.8	1123.8	1124.8	1126.9	1122.6	1135.4	1129.0	1135.4
5°	1149.1	1150.2	1151.2	1154.4	1149.1	1165.0	1156.5	1166.1
7.5°	1180.9	1182.0	1183.0	1186.2	1183.0	1198.9	1189.4	1197.9
10°	1213.8	1215.9	1215.9	1221.1	1218.0	1232.8	1226.5	1237.0
12.5°	1244.5	1246.6	1248.8	1251.9	1249.8	1265.6	1260.4	1268.9
15°	1268.9	1273.0	1274.1	1278.4	1276.2	1293.1	1286.9	1295.2
17.5°	1280.5	1284.8	1284.8	1290.0	1287.9	1305.9	1297.4	1307.0
20°	1274.1	1277.2	1278.4	1283.6	1281.5	1299.5	1291.0	1302.8
22.5°	1254.0	1255.0	1256.1	1261.4	1260.4	1276.2	1268.9	1276.2
25°	1216.9	1220.1	1219.0	1223.2	1223.2	1236.0	1227.5	1233.9
27.5°	1164.0	1167.1	1167.1	1172.5	1168.2	1180.9	1172.5	1182.0
30°	1099.4	1102.5	1100.4	1104.6	1100.4	1113.1	1106.8	1110.0
32.5°	1022.0	1022.0	1023.1	1024.1	1022.0	1033.8	1027.4	1033.8
35°	929.9	932.0	933.1	934.1	932.0	940.5	933.1	937.4
37.5°	826.1	831.4	830.4	831.4	828.2	838.9	832.5	834.6
40°	714.9	714.9	713.9	716.0	712.8	721.2	717.0	719.1
42.5°	585.8	588.9	584.6	589.9	581.5	593.1	588.9	585.8
45°	439.5	435.2	434.2	435.2	432.1	433.1	436.4	434.2
47.5°	299.8	299.8	297.6	294.4	298.6	299.8	295.5	295.5
50°	201.2	201.2	199.1	198.0	200.1	199.1	197.0	200.1
52.5°	128.1	123.9	123.9	126.0	123.9	121.8	125.0	122.9
55°	69.9	67.8	67.8	69.9	67.8	67.8	66.8	68.9
57.5°	33.9	35.0	33.9	33.9	33.9	33.9	32.9	33.9
60°	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9
62.5°	6.4	6.4	5.2	5.2	5.2	5.2	5.2	5.2
65°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
67.5°	3.1	3.1	3.1	3.1	3.1	4.2	3.1	3.1
70°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
72.5°	3.1	3.1	4.2	4.2	4.2	4.2	4.2	4.2
75°	2.1	2.1	2.1	1.0	1.0	1.0	1.0	1.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Report Generated By E9808895 / USPTCWHP6082093





— 0°-180°    - - 45°-225°    - - - - 90°-270°















(END OF REPORT)